

Appl. No. 10/602,240
Amd. Dated June 13, 2005
Reply to Office Action mailed March 11, 2005

Attorney Docket : A-2-10

In the Claims

Please amend the claims as follows:

CLAIMS:

80[1]. (CURRENTLY AMENDED) A method for removing a structure in or around a patient's heart comprising:

introducing a distal end of a catheter shaft through an opening in the patient's body to the patient's heart, the catheter shaft having a distal opening and an inner lumen in communication with the distal opening;

positioning a distal end of the catheter shaft adjacent a structure in or around a patient's heart such that an electrode terminal and a return electrode are located adjacent said structure;

spacing the return electrode away from the structure and the patient's heart; and applying a sufficient high frequency voltage difference between the electrode terminal and the return electrode to remove the structure from the patient's heart.

81[2]. (CURRENTLY AMENDED) The method of claim 80[1] wherein the applying step comprises applying a sufficient high frequency voltage difference between the electrode terminal and the [a] return electrode to ablate a portion of the structure.

82[3]. (CURRENTLY AMENDED) The method of claim [2] 81 wherein the spacing step is carried out by locating the return electrode proximal to the electrode terminal.

83[4]. (CURRENTLY AMENDED) The method of claim [2] 81 wherein the high frequency voltage is applied in the presence of electrically conductive fluid.

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84[5]. (CURRENTLY AMENDED) The method of claim [4] 83 further comprising generating a current flow path through the electrically conductive fluid between the return electrode and the electrode terminal through the electrically conductive fluid.

85[6]. (CURRENTLY AMENDED) The method of claim [1] 80 wherein the structure comprises heart tissue.

86[7]. (CURRENTLY AMENDED) The method of claim [1] 80 wherein the electrode terminal and the return electrode are positioned at a distal portion of the catheter shaft and radially outward from the distal opening, the method further comprising rotating at least the distal portion of the catheter shaft during the applying step.

87[8]. (CURRENTLY AMENDED) The method of claim [1] 80 wherein the electrode terminal comprises an electrode array of electrically isolated electrode terminals, the method further comprising applying high frequency voltage to the electrode array of electrically isolated electrode terminals and the return electrode in the presence of electrically conductive fluid such that an electrical current flows from each of the electrode terminals, through the electrically conductive fluid, and to the return electrode.

88[9]. (CURRENTLY AMENDED) The method of claim [1] 80 further comprising aspirating a region around the structure.

89[10]. (CURRENTLY AMENDED) The method of claim [4] 83 wherein the high frequency voltage is sufficient to vaporize the fluid in a thin layer between at least a portion of the electrode terminal and the structure.

90[11]. (CURRENTLY AMENDED) The method of claim [5] 84 further comprising directing the electrically conductive fluid through a fluid lumen in the catheter shaft to generate a current flow path between the electrode terminal and the return electrode.

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91[12]. (CURRENTLY AMENDED) The method of claim [1] 80 further comprising applying high frequency voltage between the electrode terminal and the return electrode to remove tissue at the heart wall.

92[13]. (CURRENTLY AMENDED) The method of claim [12] 91 further comprising forming a revascularizing channel through at least a portion of the heart wall, the revascularizing channel extending from a surface of the heart wall into the myocardium to restore blood flow to a portion of the myocardium.

93[14]. (CURRENTLY AMENDED) The method of claim [6] 85 wherein the heart tissue is selected from the group consisting of epicardium, myocardium, and endocardium.